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"KHARKIV POLYTECHNIC INSTITUTE"

ANALYSIS OF ECONOMIC ACTIVITY

Lecture notes for full-time and part-time students
in specialties 071 – "Accounting and Taxation" and 073 – "Management"
(in English)

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INTRODUCTION

Analysis of economic activity, which is also called the business analysis, is a system of special knowledge, based on the laws of development and functioning of systems and aimed at understanding the methodology of assessing, diagnosing and forecasting the financial and economic activities of an enterprise.

"Analysis of economic activity" course of study is designed for both full time and correspondence students of the specialties 071 "Accounting and taxation" and 073 "Management".

The subject of business analysis is the business processes of enterprises, their socio-economic efficiency and the final financial results of activity, which are formed under the influence of objective and subjective factors, which are reflected through the system of economic information.

The main functions of the business are presented below.

1. Search for reserves to improve production efficiency based on the study of best practices and achievements of science and practice.

2. The study of the nature of the action of economic laws, the establishment of patterns and trends of economic phenomena and processes in the specific conditions of the enterprise.

3. The study of the action of economic laws in specific conditions of production.

4. Scientific substantiation of current and future plans.

5. Control over the implementation of plans and managerial decisions for the economical use of resources.

6. The study of the influence of objective and subjective, external and internal factors on the results of economic activity.

7. Evaluation of the results of the enterprise's activities in fulfilling plans, the achieved level of economic development, the use of available opportunities and the diagnosis of its position in the market for goods and services.

8. Development of recommendations about the use of identified reserves in the course of economic activity.

In the process of studying the course, the following topics will be considered: subject, content and types of business analysis, method, methodology and special technics of analysis, organization and information base of analysis, analysis of manufacturing of products, works and services, analysis of the effectiveness of labor resources, analysis of the effectiveness of use of fixed assets, analysis of financial results and analysis of financial statements.

Table 1 – Structure of the course of study

Theme of the lecture	Number of hours
1. Subject, Contents and Types of Business Analysis	2
2. Methods, Methodology and Special Techniques of Business Analysis	6
3. Organization and Information Base of Business Analysis	2
4. Analysis of production manufacturing, works and services	6
5. Analysis of the labor resources efficiency	4
6. The analysis of efficiency of fixed assets use	4
7. Analysis of financial results	4
8. Analysis of financial accountability	4

Theme 1. SUBJECT, CONTENTS AND TYPES OF BUSINESS ANALYSIS

Lecture 1

1.1 The essence and necessity of business analysis

Analysis is a method of studying objects or phenomena of social life, the essence of which consists in dividing the object being studied into parts and examining each of the parts separately and as part of the whole phenomenon.

Business analysis is a system of special knowledge, related to the study of economic processes and phenomena.

Contents of business analysis is to study the processes and phenomena of economic activity in their interrelation and interdependence and aims to identify the unproductive expenses of labor, material and financial resources in order to make the informed managerial decisions.

The purpose of business analysis is to promote the implementation of plans of enterprises and their subdivisions, stimulating the further development and improvement of economic activity of enterprises by preparing the best managerial decisions.

The theory of business analysis is a system of knowledge about the subject and object of analysis, entity of analysis, methods, techniques and information base of analysis.

The practical organization of analytical work is a special knowledge to provide the process of analytical work.

By its contents, business analysis is connected with the economy of the enterprise, accounting, management, finance, political economy, statistics, etc.

1.2 Subject and object of business analysis

The subject of business analysis is the financial and economic activities of enterprises and institutions.

Subject of business analysis is defined by the set of its objects.

Objects of business analysis:

– producers, enterprises of different kinds of ownership;

– existing markets (stock exchanges, commercial banks, commodity exchanges, labor exchanges, etc.)

– economic processes and phenomena

Entity of business analysis - physical and legal persons that provide an analytical process.

1.3 Problems of business analysis at the present stage of economic development

The basic problems of business analysis are:

– an objective evaluation of the company and its units through comparison of costs;

– estimation of influence of relevant factors on the indicators analyzed, and the study of causal relationships;

– definition of available reserves of improvement of production efficiency;

– elaboration of concrete measures for application of the identified reserves and control of their implementation;

– summarizing the results of the analysis for making the rational decisions.

1.4 Kinds of business analysis

By the aspects of research: financial-economic, technical-economic, functional-cost.

By the purpose of research: valuation of the company, identifying the reserves and the ways of their mobilization, forecasting of financial and economic activities, development of strategy of "survival" on the market.

By the coverage of investigated problems: complex, technical.

By the studied reserves: intrafactory, comparative.

By the studied objects: interbranch, branch, factory, workshop, regional, by the functional services.

By the periodicity of conduction: preliminary, operational (current), subsequent (retrospective)

By the area of study: general economic, technical-economic.

By the use of technical means: non-automated, with application of computers.

Different types of analysis are using different kinds of economic information, techniques, and serve as a base for managerial decisions of various kinds.

Theme 2. METHODS, METHODOLOGY AND SPECIAL TECHNIQUES OF BUSINESS ANALYSIS

Lecture 2

2.1 Methods and methodology of business analysis

The method of business analysis is a system of techniques and tools of integrated, interconnected and continuous research of economic activity to establish the existing factors, trends, patterns of development in order to identify the possible reserves of improvement of the economic activity and develop the recommendations for their mobilization.

Research method is implemented through the methodology.

Methodology of business analysis is a set of analytical tools and rules of the economic research of enterprises, subordinated to the objective of analysis.

Scheme of methodology of business analysis:

1) definition of objectives of study;
2) collection and preliminary processing of information;
3) analytical calculations to identify the influence of factors on the changes in the performance indicators in order to identify the possible reserves to improve the economic level of the enterprise;
4) conclusions and recommendations.

2.2 The main categories of business analysis: indicators, factors, reserves and their classification

All the processes of economic activity are reflected by the indicators.

Indicators are the numerical measures of the object or its economic substance.

Indicators are divided into the following.

1. Absolute and relative. Absolute indicators characterize the economic activity in absolute terms (e.g., volume of production, costs of production, etc.). Ratios (relative indicators) characterize the relationship of one indicator to the other (e.g., productivity, material productivity, etc.).

2. Qualitative and quantitative.

3. Natural and cost.

Factors are the active forces that lead to the corresponding positive or negative changes in the state of object of analysis.

Factor always has both value and the direction of action.

Factors are classified according to the certain characteristics:

1. By the place in the production process:

– factors of labor;

– factors of means of labor;

– factors of objects of labor.

2. By the nature of the action: internal and external.

Factors and the resulting indicators may have either functional or probabilistic interconnection.

Functional interconnection implies that the change of factor changes accordingly the resulting indicator.

In the business analysis, the functional models are used for the study of functional relationships. Reserves are unused or promising opportunities to improve the operations of the enterprise.

Reserves are divided into:

1) reserves of production output increase;

2) reserves of sales increase;

3) reserves of cost price of production reduction.

2.3 Special techniques of business analysis

2.3.1 Comparison and its use in the business analysis

Comparison is a technique by which an object (phenomenon) under study is characterized by the ratio with the other objects or phenomena of the same quality.

The main bases of comparison are:

– standard rates;

– data of the previous periods;

– average branch performance;

– planned figures;

– indicators of advanced enterprises;

– international standards.

The main condition for using the comparison technique is to ensure the comparability of comparable indicators.

Comparability is provided by:

– neutralization of price factor (conversion of parameters into the same assessment);

– neutralization of possible quantitative differences (different output);

– neutralization of differences in the structure;

– using the same time periods;

– exclusion of other differences.

Theme 2. METHODS, METHODOLOGY AND SPECIAL TECHNIQUES OF BUSINESS ANALYSIS

Lecture 3

2.3.2 Statistical techniques: grouping, averages, relative values, time series, indexes

The grouping is one of the most common methods of business analysis.

The grouping is the distribution of many units of the observed object to qualitatively homogeneous groups by the certain essential features.

Grouping makes possible the study of various economic phenomena in their interconnection and interdependence, the determination of influence of the most significant factors to define the rules and tendencies, inherent to these phenomena and processes.

Average values are used in the analysis for summarizing the characteristics of the homogeneous mass indices (the average wage of workers, the average number of workers, the average selling price per unit of output, etc.).

Averages describe the general level of the analyzed attribute, when it is subject to significant fluctuations.

A prerequisite for using the method of averages is qualitatively similar set of the studied phenomena and factors.

Average values are divided by:

– simple arithmetic;
– weighted arithmetic;
– chronological average;
– geometric mean;
– harmonic mean;
– quadratic mean.

The most common in the business analysis are the relative values: the percentage of the planned target, growth rate and others.

Relative values are the values, which express the quantitative relation between socio-economic phenomena.

The relative values are divided into factors, percentages and indices.

Time series are widely used to analyze changes in economic phenomena and processes for a specific period.

Time series is the temporal sequence of values of economic indicators.

This are chronological or time series of index values, that allow to analyze the features of the development of the economic phenomenon.

Time series may be built based on absolute, relative or average values.

In order to achieve the required degree of reliability, performance should be calculated using the same methodology, covering the same set of objects and the same period of time. Time series constructed that way, allows to apply to it the appropriate methods of mathematical statistics. If the time series, built on the basis of a process, represented in a coordinate system, you can get a curve function, which accurately reflect the dynamics of the process. For this purpose, most commonly functions used are parabola, exponent, hyperbole, logistic function, and so on. The development of the dynamic series, based on the functions, is typically used in forecasting.

A simple but effective method for studying the economic process is the index method, which allows one to see the rates and trends of development. Base and chain indices may be used here.

2.3.3 Balance and trial balance techniques

The balance method is used to verify the correctness and completeness of the calculation of the influence of separate factors on the changes of the resulting indicator.

Balance method is the comparison of interrelated indicators of economic activity.

For example:

The balance of commodity output = rests of finished goods at the beginning of the year + volume of production for the accounting year – rests of finished goods by the end of the year

Trial balance method is a kind of the balance method. This technique determines the value of one factor when the influence of all other factors is known.

Theme 2. METHODS, METHODOLOGY AND SPECIAL TECHNIQUES OF BUSINESS ANALYSIS

Lecture 4

2.3.4 Elimination as a method of calculation of influence of factors on the resulting indicator

If there is a functional relationship between the resulting indicator and factors, which influence this indicator, then the methods of elimination are used in analytical practice. For example:

The volume of commodity output = volume of output (in units) × price per unit

Or:

The volume of commodity output = material costs × material intensity

Elimination is the removal of influence of all but one factor on the value of a resulting indicator.

The following techniques of elimination are widely used in analytical practice:

– method of chain substitutions;

– method of absolute differences;

– method of relative differences.

The *method of chain substitutions* is used to define the influence of separate factors on the changes of the resulting indicator using the gradual replacement of the basic values of each factor in the factor model to the actual values of the reporting period (formula 2.1)

$$Factor\ Model:\ Y = x1 \cdot x2 \cdot x3, \qquad (2.1)$$

Influence of factors on the resulting indicator with the method of chain substitutions presented as a table 2.1.

Comparison of the resulting indicator before and after the replacement of indicator neutralize (eliminates) the influence of all factors, except one, and makes it possible to define the influence of the variable factor.

The number of substitutions will be equal to the number of factors.

Table 2.1 – Influence of factors on the resulting indicator with the method of chain substitutions

№ of substitution	Parameters				
	x1	x2	x3	Resulting indicators	Influence of factors
0	x1(b)	x2(b)	x3(b)	Y(b)	–
1	x1(act)	x2(b)	x3(b)	Y(1)	Y(1) – Y(b)
2	x1(act)	x2(act)	x3(b)	Y(2)	Y(2) – Y(1)
3	x1(act)	x2(act)	x3(act)	Y(act)	Y(act) – Y(2)

The *method of absolute differences* – influence of factors is calculated by multiplying the absolute deviation of the test factor on the basic values of factors, placed on its right in the factor model, and the actual value of factors, placed to the left of it (formula 2.2)

$$Factor\ Model:\ Y = a1 \cdot a2 \cdot a3, \qquad (2.2)$$

The influence of the first factor a1 is calculated by multiplying the absolute deviation of this factor [a1 (act) - a1 (b)] to the basic level of other factors a2 (b) and a3 (b).

[a1 (act) – a1 (b)] · a2 (b) · a3 (b) (factor 1).

The influence of the second factor a2 is calculated by multiplying the deviation of this factor [a2 (act) - a2 (b)] to the actual value of the first factor a1 (act) and the basic values of the following factor a3 (b).

[a2 (act) – a2 (b)] · a1 (act) · a3 (b) (factor 2).

The influence of the third factor a3 is calculated by multiplying the deviation of this factor [a3 (act) – a3 (b)] to the actual value of the previous factors and basic values of the following factors a1 (act) and a2 (act).

[a3 (act) – a3 (b)] · a1 (act) · a2 (act) (factor 3).

Method of absolute differences presented as a table 2.2.

Table 2.2 – Method of absolute differences

Indicators and factors	Basic	Actual	Deviations	Including, at the expense of:		
				a1	a2	a3
Y	Y(b)	Y(act)	Y(act) – Y(b)	f.1	f.2	f.3
a1	a1(b)	a1(act)	a1(act) – a1(b)			
a2	a2(b)	a2(act)	a2(act) – a2(b)			
a3	a3(b)	a3(act)	a3(act) – a3(b)			

The *method of relative differences* – calculations of influence of factors on the resulting indicator are carried out, based on the relative performance of their changes, expressed as a percentage.

Method of calculation of influence of factors with the method of the relative differences for the model $Y = X_1 \cdot X_2 \cdot X_3$

$Y_b = X_{1b} \cdot X_{2b} \cdot X_{3b}$

$Y_a = X_{1a} \cdot X_{2a} \cdot X_{3a}$

$\Delta Y = Y_a - Y_b$ $\Delta Y = \Delta X_1 + \Delta X_2 + \Delta X_3 \ldots$

$\Delta X_1 = Y_b \cdot ((X_{1a} / X_{1b}) - 1)$

$\Delta X_2 = (Y_b + \Delta X_1) \cdot ((X_{2a} / X_{2b}) - 1)$

$\Delta X_3 = (Y_b + \Delta X_1 + \Delta X_2) \cdot ((X_{3a} / X_{3b}) - 1)$

Calculations are presented for a specific example:

$Y_b = 125 \cdot 1{,}5 \cdot 18 = 3375$

$Y_a = 127 \cdot 1{,}55 \cdot 17{,}5 = 3444{,}875$

$\Delta Y = 3444{,}875 - 3375 = 69{,}875$

$\Delta X_1 = 3375 \cdot ((127/125) - 1) = 3375 \cdot 0{,}016 = 54$

$\Delta X_2 = (3375 + 54) \cdot ((1{,}55/1{,}5) - 1) = 3429 \cdot 0{,}03333333.. = 114{,}3$

$\Delta X_3 = (3375 + 54 + 114{,}3) \cdot ((17{,}5/18) - 1) = 3543{,}3 \cdot (-0{,}027777\ldots) = -98{,}425$

$\sum \Delta X = 54 + 114{,}3 - 98{,}425 = 69{,}875$

Theme 2. METHODS, METHODOLOGY AND SPECIAL TECHNIQUES OF BUSINESS ANALYSIS

Lecture 5

2.3.5 Graphical methods

So-called graphical methods play an important role in the business analysis. Their hallmark is their visibility. Graphs, unlike the tabular material, give the state or the general characteristic of the phenomenon under study. The graphs clearly reflect trends and interdependences of the studied parameters.

The basic forms of graphs used in the business analysis are the diagrams.

Kinds of diagrams: bar, pie, line, curly, etc.

By the content, there are comparing, structural, dynamic, graphics-communications diagrams and so on.

2.3.6 Economy and mathematical methods

The effectiveness of economic and mathematical methods in the models of achieving the objectives of analytical studies is based on the extensive use of automated processing of the relevant information, which creates prerequisites of obtaining the qualitative information, necessary for the development of science-based management decisions.

Theme 3. ORGANIZATION AND INFORMATION BASE OF BUSINESS ANALYSIS

3.1 Organization of analytical work

Stages of the analytical work: preparatory, analytical, final.

Preparatory stage.

1. Development of a plan and program of analytical work.

2. Selecting and defining the general state of the object of study.

3. Formation of the goals and objectives of analysis and application of its results.

4. Development of synthetic and analytical indicators.

5. Distribution of work among analysts.

6. Development of models and forms of analytical tables, charts, diagrams.

7. The validation of information sources.

Analytical stage.

1. Collection and processing of required information.

2. Check the completeness and accuracy of accounting data.

3. Determination of the overall differences of base and actual values of indicators and factors.

4. Identification of interacting factors and their influence on the indicators.

5. Identification of unnecessary costs and missed opportunities to improve the production efficiency.

Final stage.

1. Conduct a final evaluation and synthesis of the analysis results.

2. Development of conclusions and proposals for the adoption of appropriate managerial decisions, based on analysis results.

3. Development of organizational and technical measures to correct deficiencies, improve the utilization of the identified reserves.

4. Control over the implementation of the proposals.

3.2 The information base of the business analysis

The classification of the information, used in the business analysis, is carried out by the sources of its formation and directions of use.

Sources of economic information: The legislation of Ukraine; regulatory and reference documents; statistical accounting and reporting; book keeping and reporting; policy instruments; plans, projects and costing forecasts; off-accounting sources.

Based on the sources, the information is classified by the following types: legal; directive; regulatory; planned; accounting; off-accounting.

The information, which is used in the analytical work, should always be verified and reliable.

Theme 4. ANALYSIS OF PRODUCTION MANUFACTURING, WORKS AND SERVICES

Lecture 6

4.1 Objectives of analysis of production manufacturing, works, services and its information base

Objectives of the analysis of production manufacturing, works and services.

1. Evaluation of tensions and the reasonableness of the production and sales tasks.

2. Analysis of the level and dynamics of the manufacturing and sales plan.

3. Analysis of the influence of factors on the deviations from the plan in terms of sales.

4. Analysis of the business plan on the range and structure of production.

5. Analysis of the quality of products.

6. Analysis of the rhythm of production.

Information base of analysis.

1. Initial documentation: the act of acceptance of products, the certificate of defects, the sheet about the output of finished goods, the bill of lading for finished goods to the warehouse, debit and credit (income and expense) bill, the certificate of quality of goods, the certificate of compliance with the state certification system, the consignment note.

2. Planned data: plan of the enterprise, plan of shipment and sale of products, operational plans-schedules.

3. Data of book keeping accounts: 23 – Production, 26 – Finished goods, 36 – Accounts with buyers and customers, 90 – Cost of sales, and others.

4. Accounting registers: Journals 5, 5A.

5. Financial statements: F-1 "Balance", F-2 "Statement of financial results", F-5 "Notes to the annual financial statements".

6. Statistical reporting: F1 – Enterprise "Report on the main indicators of enterprise activity", F1-B "Report on financial results, accounts receivable and accounts payable", F-1-P (urgent) "Urgent report on the production of industrial products (works, services)", F№1-Services "Report on volumes of realized services".

4.2 Overall estimation of the dynamics and fulfilment of the production and sales business plan

Overall estimation of the production and sales plan and analysis of its dynamics allows us to give an assessment of the planned target, identify the deviations from previous periods, and define the current trends in the manufacturing and sales of products to draw the appropriate conclusions.

Overall estimation of the production and sales plan is carried out in the study of the following indicators:

– the volume of production index in constant prices and current prices;

– the volume of sales index for the previous period, accounting period and according to plan.

Example in table 4.1.

Table 4.1 – Overall estimation of the production and sales plan

Performance in thousands of UAH	Previous year	Accounting year		Deviations					
		Planned	Actual	Plan / previous year		Actual / previous year		Actual / Plan	
				Sum	%	Sum	%	Sum	%
Volume of	7034	7300	7666	266	+3,782	632	+8,985	366	+5,01

commodity output in constant prices									4
Volume of commodity output in current prices	7034	7300	7665	266	+3,782	631	+8,971	365	+5,000
Volume of sales	7064	7400	7710	336	+4,757	646	+9,145	310	+4,189

4.3 Analysis of the influence of factors on the deviations from the plan in terms of sales

Deviations of the actual sales volume from the planned level are influenced by the following factors:

– changes in the volume of production;

– changes in the unsold rests of production.

While calculating the influence of factors on the sales volume, it should be noted, that with the increase in output, volume of sales increases, and an increase in balances of unsold products reduces the volume of sales.

Method of calculation of influence of factors on the sales volume is shown in table 4.2.

Table 4.2 – Analysis of influence of factors on the changes in the volume of sales.

Indicators	Plan	Actual	Deviations		
			Total	Including, at the expense of	
				Commodity output	Rests of unsold products
Volume of sales, thousands of UAH.	7400	7710	310	365	–55
Volume of commodity output, thousands of UAH.	7300	7665	365	365	–
Changes in rests of unsold production, thousands of UAH. (1.2 –1.1)	–100	–45	55	–	55

Check: +365 + (–55) = 310

Theme 4. ANALYSIS OF PRODUCTION MANUFACTURING, WORKS AND SERVICES

Lecture 7

4.4 Analysis of the business plan for the structure and range of output

Range (assortment) is a set of varieties of products of each separate kind, which differ by the relevant technical and economic characteristics.

The structure is a share of each product in the total amount of production.

To estimate the plan fulfilment on the range, the assortment factor or average percentage of the plan fulfilment on the range are used.

The fulfilment of the plan by the range (assortment) is counted by the actual output, but at a rate no higher than adopted in the plan. This order of calculation needed so that the over-fulfilment of the plan for one product would not overlap the failure for the others.

The plan by the assortment is considered fulfilled, if the production volume for each product is equal or higher than the planned target.

Failure of the plan for one product means the failure of plan for the whole range.

The main reasons of plan failures: the insecurity of material resources through the fault of suppliers, overuse of materials in comparison with the established norms, the violation of the structure of production, the insecurity of the enterprise with the appropriately qualified workforce, inefficient use of equipment, deficiencies in the planning of the production program and other performance indicators of the company.

Changes in product mix resulting in assortment shifts and changes in the structure – in the structural changes, as well as affect the key indicators of the company.

The method of analysis of the plan for the range and structure of production is shown in table 4.3.

Table 4.3 – Analysis of the plan fulfilment for the range and structure of the products.

Kind of production	Unit of measurement	Volume of output, units		Wholesale price per unit of productio	Total cost of production		Including assortment		Structure of output, %	
		Plan	Actual		Plan	Actual	Sum	%	Plan	Actual
1. Door blocks	m^2	1170	1050	1400	1638000	1470000	1470000	89,743	22,432	19,113
2. Window blocks	m^2	1530	1430	1200	1836000	1716000	1716000	93,464	25,144	22,312
3. Battens	meters	14850	14850	40	594000	594000	594000	100	8,134	7,723
4. Outer trimming	meters	3400	3380	180	612000	608400	608400	99,411	8,381	7,910
5. Planed timber	meters	78080	87510	18	1405440	1575180	1405440	100	19,247	20,481
6. Timber trade	meters	12690	18360	80	1015200	1468800	1015200	100	13,903	19,097
7. Shields prohibitive	m^2	1830	2350	110	201300	258500	201300	100	2,756	3,361
Total	–	–	–	–	7301940	7690880	7010340	96,0063	100	100

The percentage of the plan for the fulfilment for the range of production is 96.0%

The deviations by the structure of the output occurs for all products.

4.5 Analysis of the influence of structural changes on the volume of production

Example of analysis of the fulfilment of plan for the production manufacturing is shown in table 4.4.

Table 4.4 - Analysis of the fulfilment of plan for the production manufacturing.

Indicators	Plan	Actual	% of plan fulfilment
1. Cost of commodity output in current prices, thousands of UAH	7300	7665	105,0
2. Costs for normalized basic wage of manufacturing workers, thousands of UAH	1158	1227	105,96
3. The costs for the basic wage per 1 UAH of commodity output (l.2: l.1)	15,86	16,00	100,88

Effect on the volume of production is calculated by the formula:

(row 1, column 3 – row 2, column 3) / 100 · line 1, column 1 = (105,0 –105,96) / 100 · 7300 = – 70 thousand of UAH

Conclusion: the analysis shows an increase in the basic wage costs by 1.0 UAH of commodity output by 0.14 kopecks. (16,0 –15,86) or 0.88% (10,88 – 100,0), that is, the share of labor-intensive products in the total amount of output increased, and, as a result the enterprise produced less production by 70 thousand of UAH.

The increase in the normalized wage exceeds the growth of commercial output by 0.96% (105,0 – 105,96) – a negative situation, because wage increases should be lower. This indicates a lack of control over the ratio of these two indicators by the company.

Theme 4. ANALYSIS OF PRODUCTION MANUFACTURING, WORKS, SERVICES

Lecture 8

4.6 Analysis of products quality

The main indicators of quality are:

– the share of products with quality mark;
– the share of top-quality products;
– grade of quality;
– labelness;
– the service life and reliability;
– the number and cost of warranty repairs;
– availability of complaints;
– the number and amount of fines;
– the percentage of defects in manufacturing;
– downgrading;
– percentage of product recalls;
– the availability and level of demand for the product;

– others.

4.7 Analysis of rhythm of production

Rhythm is the degree of conformity of the production manufacturing to the planned schedule.

Unrhythmical work leads to poor utilization of productive resources, non-production costs (demurrage, overtime, weekend work), increase of losses from defects in manufacturing, fines and penalties for late delivery of products, the deterioration of financial results and financial position of the company.

Data, used for analysis: form # 1 – "Enterprise", P-1 "Report on output", form №2 «Profit and Loss Account", daily and ten-day reporting about the manufacturing and shipment of products, synthetic and analytical accounting about the manufacturing and sales casts of production.

Indicator to assess the degree of rhythmicity of the enterprise is a factor of rhythm. It is calculated as the ratio of actual output for a decade as part of the plan to the planned value of output. The method of calculation of rhythm of manufacturing is presented in table 4.5.

Table 4.5 – Calculation of rhythm.

Decades	Production output, thousands of UAH			
	Planned	Actual	In limits of plan	Coefficient of rhythm, %
I	20	19	19	95
II	20	21	20	100
III	20,8	23,9	20,8	100
Total	60,8	63,9	59,8	98,4

Conclusion: The analysis shows that the coefficient of rhythm was 98.4%.

This failure to plan was due to the failure of the production plan in the first decade - 95%.

Theme 5. ANALYSIS OF THE LABOR RESOURCES EFFICIENCY

Lecture 9

5.1 Meaning, tasks and sources of information for the analysis of the labor resources efficiency

Human (labor) resources is the most active and decisive factor of production.

Main tasks of the analysis:

– analysis of the composition, structure, movement of labor resources and security of the enterprise with the workforce;

– analysis of use of working time;

– analysis of labor productivity;

– analysis of influence of labor factors on the volume of production manufacturing;

– definition of reserves to increase the volume of production manufacturing at the expense of more efficient use of labor resources.

Sources of information: Form 1-PV "Report on labor"; Form 3-MF "Report on the use of working time"; Form 1-P "Report on production"; accounting data.

5.2 Analysis of the security of the enterprise with the workforce

The staff by the nature of participation in the production process is divided into the workers of basic activities, directly engaged into manufacturing of products, and non-manufacturing staff, employed in the service and other areas.

The method of analysis of security of the enterprise with employees is presented in table 5.1.

Table 5.1 – Analysis of the security of the enterprise with employees.

Indicators	Plan	Corrected plan	Actual	Absolute deviation			Relative deviation, %		
				CP/P	A/P	A/CP	CP/P	A/P	A/CP
Workers	400	420	412	20	12	–8	5	3	–1,90
Specialists and managers	50	51	52	1	2	1	2,00	4,00	1,96
Workers of basic activity	450	471	464	21	14	–7	4,67	3,11	–1,49
Total number of workers	470	492	485	22	15	–7	4,68	3,19	–1,42

To study the movement of labor resources in the enterprise, the turnover rates are calculated for the reception and dismissal.

Turnover rate for reception (TRR) is a ratio of newly hired workers to annual average number of workers, for example:

TRR = (5/45) · 100 = 11,1 %

Turnover rate for dismissal (TRD) is a ratio of the number of dismissed workers to the average list number of workers, for example:

TRD = (6/45) · 100 = 13,3 %

5.3 Analysis of working time

Analysis of working time use is carried out in two directions:

– detection of losses of working time;

– identification of unproductive use of time.

The use of working time for all categories of workers is analyzed using the following two indicators.

1. The average number of days, fulfilled by one worker during the reporting period.

2. The average duration of one working day.

Factors, which influence the average number of days, fulfilled by one worker:

Losses of working time, including:

– absenteeism;

– absenteeism with the permission or at the initiative of the administration;

– mass absenteeism (strikes);

– the number of days of annual holidays;

– the number of days off and vacations;

– the number of days of temporary incapacity;

– leave in connection with training.

Factors, which influence the duration of one working day:

– the duration of the standard working week;

– overtime;

– idle time during a work shift;

– reduction of the working week;

– other factors.

The size of fund of working time (FWT) depends on the number of workers (Nw), average number of working days, fulfilled by one worker during the accounting period (D) and the average duration (T) of the working day (or shift). This dependence is expressed by the formula 5.1:

$$FWT = Nw \cdot D \cdot T\,, \qquad (5.1)$$

Analysis of influence of factors on the changes in the fund of working time is shown in the table 5.2.

Table 5.2 – Analysis of the influence of factors on the changes in the fund of working time

Indicators	Factors	Fp	Fa	Plan fulfillment, %	Influence of factors		
					Diff. in levels of indicators, %	Thousands of man-hours	Calculation
1. Average list number of workers	1. Changes in number of workers	40	40	40/40·100 = = 100	–	–	–
2. Total number of days, fulfilled by all workers	2. Changes in number of days, fulfilled by one worker	238	240	9520/9600· 100 = 99,167	99,167 – 100 = = –0,833	–0,584	70,08 · 0,833/100 = = –0,584
3. Totla number of man-hours, fulfilled by all workers	3. Change in duration of working day	7,4	7,3	70,45/70,08 · 100=100,528	100,528 – 99,167 = +1,361	+0,954	70,08 · 1,361/100 = = +0,954
Total deviation	70,45 –70,08 =	7044	7008	0,37		+0,37	

Total deviation = 70,45 – 70,08 = +0,37

Check: – 0,584 + 0,954 + = 0,37 thousands of man-hours

Conclusion: The fund of working time compared to the plan increased by 0,37 thousands man-hours. This was due to increase in working hours by 0,954 thousands of man-hours, but the decrease in the number of days, fulfilled by one worker, has led to decrease in production time by 0,584 thousands man-hours (i.e., there were repeated delays).

Theme 5. ANALYSIS OF THE LABOR RESOURCES EFFICIENCY

Lecture 10

5.4 Analysis of labor productivity

Productivity – a qualitative indicator of labor resources of the enterprise and the main factor of production volumes growth.

Indicators of labor productivity:

– average hourly productivity (commodity output / number of man-hours worked);

– average daily productivity (commodity output / number of man-days worked)

– labor productivity per worker;

– labor productivity per employee.

5.5 Analysis of influence of labor factors on the production volume, and definition of reserves of its increase by more efficient use of labor resources

The volume of commodity output (CO) depends on the number of workers (Nw), the average number of days, worked by one worker (Nd), the average duration of the working day (T) and hourly labor productivity (LPh).

This dependence is expressed by the formula 5.2

$$CO = Nw \cdot Nd \cdot T \cdot LPh\ , \qquad (5.2)$$

Analysis of influence of labor factors on production volume is presented in the table 5.3.

Conclusion: The volume of production increased in comparison with the plan by 365 thousand of UAH, or by 5 %. This was due to the increase in working hours for 100 thousand of UAH and an increase in hourly productivity of labor for 326 thousand of UAH.

However, reducing in number of days, worked by one worker, led to decrease in production volume by 61 thousand of UAH.

Thus, in the company, there were repeated delays, so reserve to increase production volume is to eliminate the whole-day downtime, which can increase the production volume by 61 thousand of UAH.

Table 5.3 – Analysis of influence of labor factors on production volume

Indicators	Factors	Fp	Fa	Plan fulfilment, %	Influence of factors на		
					Difference in levels of factors, %	Thou-sands of UAH	Calcula-tion
1. The average number of workers	1. Change in number of workers	40	40	40/40·100= 100,0	–	–	–
2. The total number of days, worked by all workers	2. Change in number of days, fulfilled by one worker	238	240	9520/9600· 100,0=99,167	99,167–100= – 0,833	– 61	– 0,833· 7300/100 = – 61
3. Total number of man-hours, fulfilled by all workers	3. Changes in duration of a working day	7,4	7,3	70,45/70,08· 100,0=100,528	100,528 – 99,167=1,361	100	1,361· 7300/100 =100
4. Commodity output	4. Changes in hourly productivity	103,622	109,375	7665/7300· 100,0=105,0	105,0–100,528 =4,472	326	4,412· 7300/100 =326
Total deviation, thousands of UAH		7300	7665			+ 365	–61+100 +326=365

Theme 6. THE ANALYSIS OF EFFICIENCY OF FIXED ASSETS USE

Lecture 11

6.1 Tasks and information base of analysis of efficiency of fixed assets use

Fixed assets are the set of tangible property, acting in material form for a long time in the sphere of material production and non-manufacturing sector, the value of which gradually decreases due to wear and tear.

Objectives of analysis:

– identification of security of the enterprise with the fixed assets;

– definition the level of use of the fixed assets and the influencing factors;

– estimation of the efficiency of fixed assets use;

– calculation of the influence of efficiency of fixed assets use on the volume of production manufacturing;

– identification of reserves to increase the volume of production manufacturing by improving the efficiency of fixed assets use.

Information sources:

– F 1 "Balance Sheet";

– F. 4 "Report on equity";

– F-1 P "Report on output"

– F 1 F "Report on the presence and movement of fixed assets";

– Other.

6.2 Analysis of the composition and structure of fixed assets

Fixed assets are divided by:

– manufacturing

– non-manufacturing

The manufacturing fixed assets are divided into:

– active part;

– passive part.

To improve the efficiency of production, growth rates of active fixed assets have to outpace the growth rates of their passive part, and the increase in the number of machines and equipment have to outpace the growth rate of other types of the active part of fixed assets.

6.3 Analysis of the security of the enterprise with the fixed assets

Indicators of security of the enterprise with the fixed assets presented below.

1. *Fixed capital per one worker of the operational activity* calculated as follows: Fixed capital per one worker of the operational activity = Average annual value of Fixed assets: Average number of workers of the operational activity.

2. *Technical equipment of labor per worker* calculated as follows: Technical equipment = average annual value of machines and equipment: Average number of workers of the enterprise.

The analysis compares the performance of the reporting and the previous period. If the Fixed capital per one worker and technical equipment are higher than the indicators of previous periods, the company is considered secured by the fixed assets.

Theme 6. THE ANALYSIS OF EFFICIENCY OF FIXED ASSETS USE

Lecture 12

6.4 Analysis of movement and technical condition of fixed assets

The analysis begins with the calculation of the value of fixed assets by the beginning and by the end of the accounting period. Further, the growth rate is calculated by comparing the values by the end of the period with the values by the beginning of the period, expressed as a percentage.

The movement and condition of fixed assets are defined by the following indicators: depreciation factor, suitability factor, the coefficient of update, the coefficient of retirement of fixed assets.

Depreciation factor = Total amount of depreciation / total value of fixed assets

Suitability factor = 1 – Depreciation factor

The coefficient of update = The value of new fixed assets for the accounting period / Value of fixed assets by the end of the accounting period.

The coefficient of retirement of fixed assets = The value of fixed assets retired during the accounting period / Value of fixed assets at the beginning of period.

6.5 Analysis of the efficiency of fixed assets use

Capital productivity is a general indicator of efficiency of the fixed assets use.

Capital productivity of fixed assets = The volume of production (Commodity output) / Average annual value of fixed assets

Capital productivity of the active part of fixed assets = The volume of production (Commodity output) / Average annual value of machines and equipment

Factors that influence the changes in capital productivity:

– changes in the share of the active part of fixed manufacturing assets
– changes in capital productivity of the active part of fixed manufacturing assets

Analysis of influence of factors on the changes in the capital productivity of assets is presented in the table 1.

Factor model has the following form

CP_{bma} = *Share of the active part of the fixed assets* × *Capital productivity of the active part of the fixed assets.*

Using the method of chain substitutions, let's calculate the influence of factors on the changes in the capital productivity of fixed assets. Analysis of influence of factors on the changes in the capital productivity of the fixed assets is presented in form of table 6.1.

Table 6.1 – Analysis of influence of factors on the changes in the capital productivity of the fixed assets

Indicators	Plan	Actual	Deviation	Including, at the expense of	
				Share of active part of assets	Capital productivity of active part of assets
1. Capital productivity of basic manufacturing assets	2,719	2,892	+0,173	–0,817x	+1,7399x
2. Share of active part of BA, %	17,895	17,078	–0,817	x15,1961	x17,078=
3. Capital productivity of active part of BA	15,1961	16,936	+1,7398	= –0,124	= +0,297

Check: –0,124 + 0,297 = 0,173

Theme 7. THE ANALYSIS OF FINANCIAL RESULTS

Lecture 13

7.1 Definitions and the main tasks of the analysis of financial results

Financial results of the company are characterized by the growth of total shareholders' equity (net assets), which is the main source of income from operating, investing, financing activities, and income, received as the result of extraordinary events.

Profit is a part of the net income that enterprises directly receive after the sale of products as a reward for invested capital and the risk of entrepreneurial activity. Quantitatively, it is the difference between aggregate income (after payment of value added tax, excise duty and other deductions from revenues to budget and non-budgetary funds) and the total expenses of the reporting period. The volume of profit and the level of profitability depends on the manufacturing, supply, marketing, sales, investment and financial activities of the enterprise. Therefore, these indicators characterize all aspects of economic activity.

The main tasks of the analysis of financial results are:

– explore opportunities for profit in accordance with the available resource potential of the enterprise and the market conjuncture;

– systematic control over the process of profit formation and changes in its dynamics;

– definition of the influence of both external and internal factors on financial results and assessing the quality of profits;

– identification of reserves to increase the amount of profit and profitability;

– evaluation of the company's work with the application of opportunities to increase profits and profitability;

– development of recommendations for improving the efficiency of the profit management system.

The main sources of information in the analysis of financial results are invoices for the shipment of products, analytical accounting data on the accounts of results, financial statements f. No. 1 "Balance", f. No. 2 "Statement of financial results", f. No. 3 "Cash Flow Statement", f. No. 4 "Own capital statement", f. No. 5 "Notes to the annual financial reports", statistical reporting data "Report on the issue, sale and circulation of securities", internal management reporting data, as well as the corresponding tables of the business plan of the enterprise.

7.2 Analysis of the composition and dynamics of the profit of the enterprise

Profit indicators used in business analysis. Analysis of the composition and dynamics of profit indicators. Neutralization of inflationary factor in the analysis of financial results. Influence of the accounting policy of the enterprise on the amount of profit.

During the analysis, various profit indicators are used, which can be classified as follows.

1. By the types of economic activity, there are profit from the main (operational) activity, profit from investment activity, and profit from financial activities.

2. According to the composition of the elements there are marginal (gross) profit, the overall financial result of the reporting period before interest and tax (brutto-profit), profit before tax, net profit.

Marginal profit is the difference between revenue (net) and direct production costs for the products sold.

Gross profit includes financial results of operational, financial and investment activities, non-operating and extraordinary income and expenses (before interest and taxes). It characterizes the overall financial result earned by the enterprise for all stakeholders (state, creditors, owners, hired personnel).

Profit before taxation is the result after payment of interest to creditors.

Net profit is the amount of profit that remains at the disposal of the enterprise after payment of all taxes, economic sanctions and other obligatory contributions.

3. Depending on the nature of the enterprise, there are profits from ordinary (traditional) activities, and profits from extraordinary situations, unusual for the enterprise.

4. By the nature of taxation there are taxable and non-taxable (preferential) profit, in accordance with tax legislation, which is periodically reviewed.

5. By the degree of inflation factor there are nominal profit and real profit, adjusted for the inflation rate in the reporting period.

6. By the economic content profit is divided into the accounting and economic. Accounting profit is defined as the difference between income and the current costs, reflected in the system of book keeping accounts. Economic profit differs from the accounting, because not only explicit costs are considered, but also implicit ones that are not displayed in the traditional book keeping (for example, the costs for maintenance of fixed assets, belonging to the owner of the firm).

7. By the nature of use the profit is divided into capitalized and consumed. Capitalized profit is part of the net profit, directed to finance the growth of the company's assets. Consumed profit – the part which is spent on the payment of dividends to shareholders and founders of the company. The mechanism of formation of these indicators is shown in the figure 1.

In the process of analysis, it is necessary to study the composition of profit, its structure, dynamics and implementation of the plan for the reporting period (table 1). When studying the dynamics of profit, it is necessary to consider the inflationary factors of the change in its amount. To do this, revenue is corrected by a weighted average price growth index for the company's products on average in the industry, and the cost of the sold products is reduced by their growth because of higher prices for consumed resources over the analyzed period.

Theme 7. THE ANALYSIS OF FINANCIAL RESULTS

Lecture 14

As shown in table. 7.1, the gross amount of gross profit before interest and taxes increased by 8,1 %. The largest part of it is earned from operational activities (95,15 %). Share of other financial results from investment activity is only 4,85 %, but with the development of market relations it can be significantly increased. The level of tax withdrawal of profits has not changed, but economic sanctions on payments in the budget increased. Net profit for the period increased by 7,2 %.

Table 7.1 – Example of the structure of financial results of an industrial enterprise

Indicator	Value of indicator				Changes	
	Base period		Reporting period			
	Sum, th. of UAH	Share, %	Sum, th. of UAH	Share, %	Sum, th. of UAH	Share, %
Profit from sales of production, goods, services	17900	96,8	19296	96,48	+1396	–0,32
Balance of other operational incomes and costs	–180	–1,0	–266	–1,33	–8 6	–0,33
Profit from basic operational activity	17720	95,8	19030	95,15	+1310	–0,65
Profit from investment activity	780	4,2	970	4,85	+190	+0,65
Brutto-profit from ordinary activities before paying interest and taxes	18500	100	20000	1000	+1500	–
Interest payable on borrowed funds	2748	14,85	2950	14,75	+202	–0,10
Profit from ordinary activity before taxes	15752	85,15	17050	85,25	1298	+0,10
Profit tax and other obligatory payments, economic sanctions	3952	21,37	4400	22,00	+448	+0,63
Net profit from ordinary activity	11800	63,78	12650	63,25	+850	–0,53
Balance of extraordinary incomes and costs	–	–	–	–	–	–
Net profit of reporting period	11800	63,78	12650	63,25	+850	–0,53

In the figure 7.1 you can see structural-logical model of formation of profit indicators.

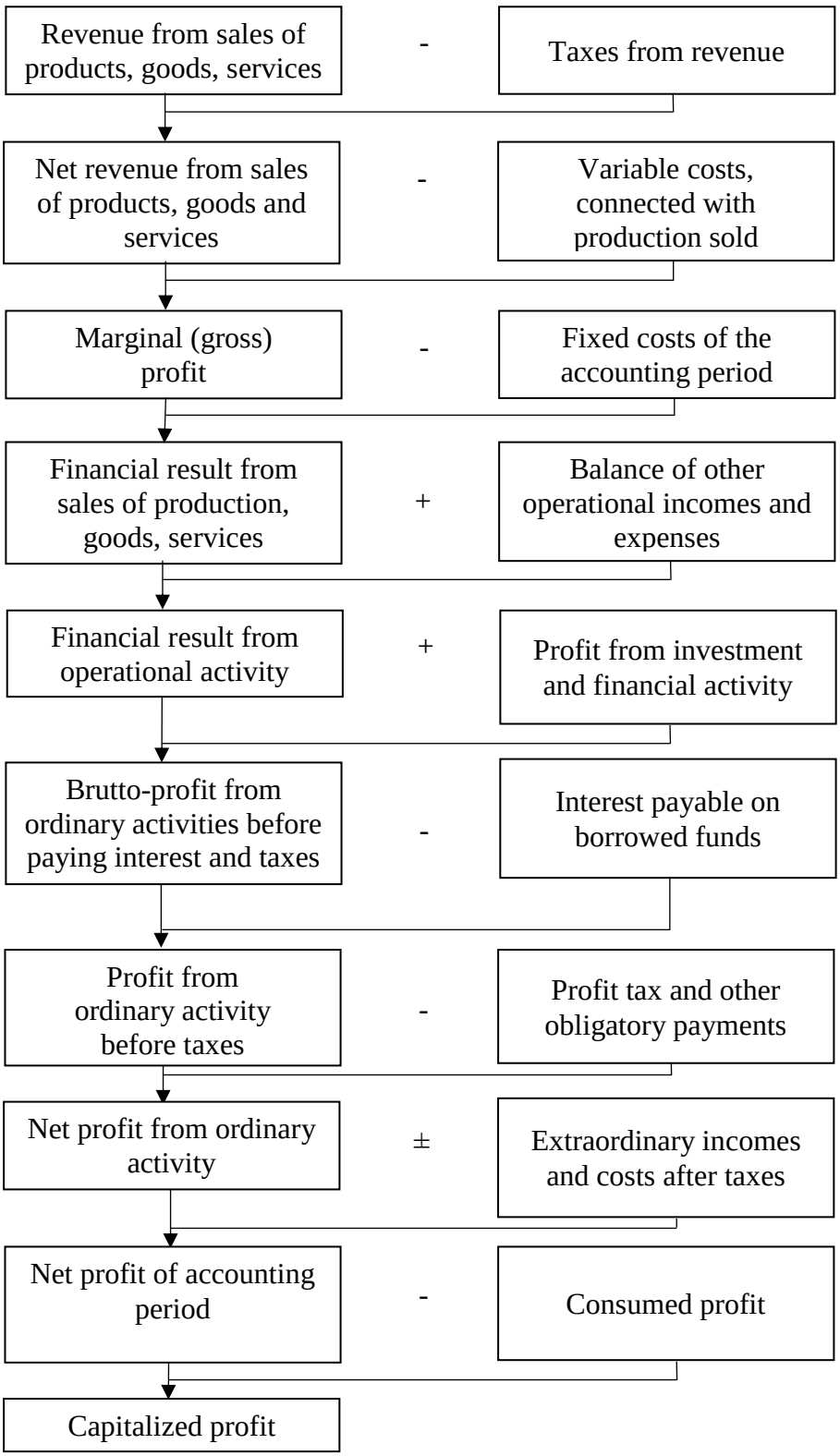

Figure 7.1 – Structural-logical model of formation of profit indicators

Analyzing the composition and dynamics of profit, it is necessary to keep in mind that its volume largely depends on the accounting policy of the enterprise. The law about the accounting and other normative documents provide the right for business entities to independently choose certain accounting methods that can significantly affect the formation of financial results. The current normative acts allow such methods of profit regulation by the enterprise.

1. Change in the cost limits of assigning property to fixed assets or to current assets, which entails a change in the amount of current costs and profits due to various ways of classifying them as expenses.

2. Change in the method of revaluation of fixed assets: by indexing the original value using the average coefficients or by directly recalculating the original cost into prices formed on the revaluation date for the respective types of fixed assets. The revaluation fund of property (additional capital), the amount of depreciation deductions and, as a result, the amount of profit and equity of the enterprise depend on the chosen method of revaluation of fixed assets.

3. Using the method of accelerated depreciation of the active part of fixed assets also leads to an increase in the cost of production and a decrease in the amount of profit, and, consequently, profit tax.

4. Application of various methods of valuation of intangible assets and methods for calculating depreciation on them.

5. Selection of a method for valuation of the consumed production stocks (FIFO, LIFO, and weighted average).

6. Changing the procedure for writing off the costs of repairing of fixed assets at the cost of production (by actual costs or by even parts at the expense of the established repair fund).

7. Change in the maturity of future expenses, the reduction of which leads to an increase in the cost of production of the reporting period.

8. Change in the method for determining the profit from the sale of products (at the time of shipment of products or the moment of payment).

Thus, the accounting policy formed by the administration opens up wide scope for the choice of methods that can radically change the whole picture of the financial results and financial condition of the enterprise.

In the process of analysis, it is necessary to establish compliance of the adopted accounting policy of an enterprise with the current accounting regulations and to determine the impact of changes in accounting policy for gross profit, net profit and tax, as well as the amount of expendable consumed and capitalized profits. To do this, you should reflect in the special table the level of the listed indicators before and after changing each method of the accounting policy of the enterprise.

Theme 8. ANALYSIS OF FINANCIAL STATE OF ENTERPRISE

Lecture 15

8.1 Role of financial analysis in strengthening of enterprise economic activities

One of tools ascertaining real competitiveness is an analysis of financial state of enterprise.

Financial state of enterprises is the indicator of its financial competitiveness, that is creditworthiness, solvency, implementation of commitments before the state and the other enterprises.

Financial analysis is the means of assessments and forecasting of financial state of enterprise based on its accounting reporting.

Information base of financial analysis is an accounting financial reporting, that is the system of indicators, reflecting the property and financial state of enterprises for the specific date. Analyzing the financial state of enterprises by this forms, it is first necessary to familiarize with National regulation (Standard) of book keeping No. 1 "General requirements to financial reporting" and make sure that all demands of this standard are taken into account by the company. This reporting is oriented on market relations, on those users, which may not receive the reports, drawn up with the account for their specific information needs.

By accessibility the information is dived into open and closed (last is a

commercial secret), and because of this the analysis is divided into internal and external.

Internal analysis is carried out by the financiers of the enterprises on the basis of standards, applied on enterprise, and performed by the way of comparisons of these standards with the actual parameters of enterprise financial activities.

External analysis is carried out by the interested organizations - tax inspection, banks, shareholders, other structures – by the data of accounting reporting.

The feature of the reporting, developed according to international financial reporting standards, is that it may be widely used by the investors and others persons, participating at entrepreneurial activities, – creditors, suppliers, competitors, workers of the enterprise. Each user of the financial reporting, as rule, is studying that information, which is needed by him in the process of entrepreneurial activities. So, owners of enterprises need to know, if the specific weight of own capital increases or decreases, estimate the efficiency of resources use at the enterprise; creditors and suppliers – necessity and opportunity of credit extensions, conditions of crediting, guarantees of credit return and so on. Detailed analysis of financial state may be carried out by the administration of the enterprise, because it has the opportunity to use the data of managerial accounting.

In some cases, only accounting reporting is not enough for analysis of financial state of the enterprise, especially for investors. R(S)BK provide notes to forms of accounting reporting, allowing external users of the financial information to familiarize with the financial state of enterprise in detail.

Besides financial reporting, the information is used, which is available only to internal users, like units and employees of the enterprise. Each of them uses that information, which is needed by him for adopting the relevant managerial solutions. Leader of financial department need to know the real evaluation of activities of his enterprise and its financial state, leader of marketing department need the information for development of strategy of entering to the market, and so on. Therefore, the following information is used in the process of analysis of financial state of enterprises:

- design and technological;
- planned normative (financial plan, standards of stocks);
- data of all kinds of economic accounting (operational, statistical, book keeping)
- reporting: annual and quarterly financial reporting, commercial reporting, composed by special instructions, and compulsory statistical reporting;
- off-accounting information: marketing research, laws, instructions and expert information.

The main task of financial analysis is to timely identify and eliminate limitations in financial activities, find managerial solutions to improve the financial state of enterprises and its solvency.

The key directions of analysis of financial state is to study reasons, which negatively or positively affect the financial condition, preparation of projects of managerial decisions to enhance the financial stability and solvency of the enterprise, working out of activities to optimize structures of financial resources and their effective use.

The tasks of analysis may be different depending on objectives of analysis and specificity of enterprise. These tasks are resolved on the basis of research of dynamics of absolute and relative financial indicators from the allocation of the following major kinds of analysis of financial state:

- analysis of balance sheet;
- analysis of property and sources of its reception (analysis of assets and liabilities);
- analysis of liquidity and solvency;
- analysis of financial stability;
- analysis of turnover of circulating assets;
- analysis of movement of money resources;
- analysis of accounts receivable and creditor debt;
- analysis of use of capital.

The main methods of analysis of financial state, which are widely used in

practice of economic activities, are:

Horizontal analysis – in the process of analysis the absolute and relative changes of values of various items in the balance sheet for the reporting period are defined;

Vertical analysis – calculation of specific weight of separate items at a total currency of the balance sheet, that is the study of structure of asset and liabilities articles on the reporting date;

Coefficient analysis studies the level and dynamics of relative indicators of financial state, calculated as attitudes values of balance items or other absolute indicators, received based on reporting. These coefficients are compared with basic data;

Factor analysis is applied to identify the reasons of change of the absolute and relative financial indicators and for calculation of influences of these reasons (factors) on the change of financial indicator, which is analyzed.

Quality of financial analysis depends on applied methods, authenticity of financial reporting data, as well as from the competence of leader, who takes the managerial decisions.

Data of the current financial analysis serve as the basis for development of the major indicators of financial and production plan, which used for calculation of economic landmarks for development of enterprise. The quality of financial analysis influences the efficiency of managerial solutions, and so – the efficiency of enterprise work as a whole.

Theme 8. ANALYSIS OF FINANCIAL STATE OF ENTERPRISE

Lecture 16

8.2 Basic directions of balance analysis

The main source of information for analysis of financial state is an accounting balance of the enterprise. Its value is so great, that the analysis of financial state is infrequently called the balance analysis.

Balance is groupings of information by the beginning and the end of the

reporting period, which is totals of economic operations for a certain reporting date. Therefore, studying balance, leaders of the enterprises acquire the information about the place of their enterprises in the system of similar enterprises, are convinced in the correctness of the selected strategic course, effectiveness of resources use, etc.

Auditors may also acquire the important information from the balance sheet. They have an opportunity to choose the correct decision about carrying out of checks, identify weak places in the system of accounting, different errors in the external reporting of the client. Finally, analysts also use the data of the balance for analysis of the financial state of enterprises. It is important to be able to read the balance, to know the content of each article, the methods of their evaluation, interconnections with other articles, quality characteristic. Skill to read the balance gives the opportunity to:

- get the necessary amount of information about enterprise;
- calculate the level of security of the enterprise with own circulating assets;
- define the causes of changed amount of the circulating assets;
- estimate the financial state of enterprise for the reporting period.

Analysis of financial state in the reporting period begins from its general estimation by the balance data. Analysis of the balance sheet begins from express analysis, which goal is the current and fast assessment of financial state and dynamics of development of the enterprise. Express analysis of the balance sheet includes several stages:

- preparatory;
- preliminary inspection of accounting reporting;
- reading of the balance.

The goal of the first stage is to make sure that the balance is ready to reading. The simple countable test of the balance sheet by formal features and in essence is carried out. At this stage, it is necessary to check the correctness of graphs filling, availability of all necessary forms and applications, check the currency of the balance sheet and all intermediate results and check, whether all the requirements of R(S)BK are fulfilled.

Express analysis of balance sheet indicators is carried out in dynamics with the help of personal computers. It applies the simple system of analytical tables, consistent view of which will give the complete information about the financial condition of the enterprise. It may include:

– economic facilities of the enterprise (economic means, key facilities, intangible assets, circulating assets);

– basic assets of the enterprises and their structure (value of basic assets, including the active part by the primary and residual, coefficients of wear and recovery);

– structure and dynamics of circulating assets (totals of section 2 of assets in the balance sheet);

– key results of economic activities of the enterprise in dynamics: amount of sales, profit, profitability;

– efficiency of use of financial resources (contains indicators of share of all financial resources, including own and attracted, profitability of financial resources).

On the second stage, it is necessary to familiarize with notes to reports, estimate the tendencies of major indicators of activities, possible quality modification in the future financial state of enterprise.

Main stage of express analysis is the third, which is reading of the balance. It includes the preliminary general acquaintance with the results of work of the enterprise and its financial state directly from the accounting balance sheet, and the calculation of coefficients, characterizing the financial state of the enterprise. Reading of the balance includes definition of:

– character of changes of currency of the balance sheet and its separate sections and articles;

– advisability of accommodation of enterprise property;

– current solvency and liquidity of the enterprise.

Reading of the balance sheet begins from definition of changes in balance sheet currency for the analyzed period by comparing its value for the reporting and previous periods. If currency of the balance sheet increases – it is estimated

positively, and vice versa. Increase in currency of the balance sheet, as rule, reflects the growth of production capabilities of the enterprise. However, it is necessary to consider the factor of inflation. Decrease of the balance sheet currency means recession in the economic activities of enterprise (decreased demand for products, lack of raw and basic materials, etc.). Currency of the balance sheet reflects an indicative evaluation of sums of means in disposal of the enterprise. This is accounting evaluation and it does not reflect the real sums of means, which can be received for the property, for example, in case of elimination of enterprise. Current "price" of assets depends on market conjuncture and can deviate at any side from accounting, especially in the periods of inflation.

For a general assessment of dynamics of financial state, it is necessary to establish the ratio of dynamics of balance sheet to dynamics of volume of production, sales of products and the profit of the enterprise.

The methodology of the general assessment of balance sheet currency may be complemented by the calculations of ratios balance sheet currency increase, ratios of revenue from sales of products, ratios of increase profit from sales, profits from other kinds of activities of the enterprise. These coefficients also allow to make the overall evaluation of financial state of enterprise.

Coefficient (Kb) of increase of property is calculated by the formula 8.1

$$K_b = \frac{B_1 - B_0}{B_0} \cdot 100\,\%, \qquad (8.1)$$

Where B_1, B_0 – average value of property for the reporting and previous periods.

Coefficient (K*v*) of increase of revenue from sales of products is calculated by the formula 8.2

$$K_b = \frac{V_1 - V_0}{V_0} \cdot 100\,\%, \qquad (8.2)$$

Where V_1, V_0 – revenue from sales of products for the reporting and previous periods.

The coefficients of increase of profit from sales of and the increase of profit

from other kinds of activities are calculated the same way.

If the coefficient of increase of revenue from sales (increase of revenue from other kinds of activities) will be higher than the coefficient of increase of property, then this indicates about improving of the situation with means in company compared to the previous reporting period, and vice versa.

Finally, besides the change of the balance sheet currency as a whole, it is necessary to analyze the character of changes of the separate articles in the balance sheet, that is to carry out the horizontal and vertical analysis of the balance.

Horizontal analysis balance sheet is a comparison of every item in the balance sheet, calculating of changes of absolute and relative values, and the quality characterization of the identified deviations.

Vertical analysis of the balance sheet provides the calculation of relative indicators. A task of vertical analysis is the calculation of specific weight of separate items in the total currency of the balance sheet and assessment of their changes. Vertical analysis help to make the inter-farm comparisons. Besides, the relative indicators soften the negative influence of inflationary processes.

Horizontal (dynamic) analysis of these indicators gives the opportunity to establish the absolute deviations and pace of growth for each article in the balance sheet, and the vertical (structural) analysis – to make the conclusions about the ratio of own and loan capital, which reflects the level of autonomy of the enterprise and its financial stability. Horizontal and vertical analysis may be conducted for several reporting periods.

The key features, which allow to consider the balance as "Positive":

1) increase of balance sheet currency at the end of the reporting period compared to its beginning;

2) growth rate of all of assets is higher than the growth rate of non-negotiable assets;

3) surplus of own capital of the company over the loanable and higher rate of its growth compared with the rate of growth of the loanable capital;

4) about the same rate of increase of accounts receivable and creditor debt;

5) share of own circulating assets more than 10 %.

After consideration of major directions of balance sheet analysis, it is necessary to consider the influence of inflation on balance currency.

CONTROL QUESTIONS

1. Definitions of the business analysis and the theory of business analysis. The main tasks of the business analysis.
2. Tasks and objects of the business analysis.
3. Primary goals of business analysis.
4. Types of business analysis.
5. Methods and techniques of business analysis. Scheme of methods of business analysis.
6. Factors and indicators in the business analysis. Types of indicators.
7. Reserves in the business analysis. Types of reserves.
8. Kinds of special techniques of business analysis.
9. Comparison technique. The base of comparison.
10. Grouping, averages, relative values, time series, indices as methods of business analysis.
11. Elimination, its nature, kinds of elimination.
12. Explain the nature of the method chain substitutions.
13. Explain the nature of the method of absolute differences.
14. Explain the nature of the method relative differences.
15. Graphical methods in business analysis.
16. Stages of analytical work.
17. InfoBase of the business analysis.
18. The problems of analysis of manufacturing of production, works and services.
19. The analysis of production quality, the main indicators of quality.
20. The analysis of efficiency of human resources use, its main tasks.
21. The analysis of labor productivity, its main indicators.
22. The analysis of efficiency of manufacturing basic assets use, the main tasks of analysis.

23. The analysis of movement and technical condition of basic assets, its main indicators.

24. The analysis of efficiency of manufacturing basic assets use, its main indicators.

RECOMMENDED READING

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